Ramsar Information Sheet

Published on 20 May 2020
Update version, previously published on : 1 January 2012

Estonia

Agusalu

Designation date	27 January 2010
Site number	1999
Coordinates	59°04'30"N 27°33'03"E
Area	11 000,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The site is a southern part of Estonia's largest mire system (Agusalu-Puhatu) consisting of several bogs, transition mires and fens. Coniferous as well as alluvial deciduous forests are surrounding the mire system.
The mire system is very peculiar in Estonia since it has formed between a sandy range of hills called "kriivas". Therefore the general appearance of the landscape is striped - narrow islands covered by heathy pine forest alternate with wet bogs. This heterogeneous area is valuable in terms of diversity of landscapes and habitat types forming a complex being nearly intact. The site supports priority habitats of Annex I of EU Habitats Directive and provides breeding places for many species of Annex I of EU Birs Directive.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Estonian Wetland Society
Postal address	Suurküla 21, Häädemeeste, 86001 Pärnumaa, Estonia

National Ramsar Administrative Authority

Institution/agency	Estonian Wetland Society
Postal address	Suurküla 21, Häädemeeste, Pärnumaa, Estonia

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2012
To year	2019

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Agusalu

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes ○ No ◉
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	☐
(Update) The Site has been delineated more accurately	☑
(Update) The Site area has increased because of a boundary extension	☐
(Update) The Site area has decreased because of a boundary restriction	☐
(Update) For secretariat only: This update is an extension	☐

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	No

(Update) Optional text box to provide further information

No principal changes but in one part of the site (Feodorisoo Bog) the hydrological conditions and quality of bog habitats is improving due to the restoration activities carried out in 2018-2019.

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps	0

Boundaries description

The boundary is the same as an existing nationally protected area (Agusalu Nature Reserve).

2.2.2 - General location

a) In which large administrative region does the site lie?	Ida-Viru
b) What is the nearest town or population centre?	Jõhvi

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ○ No ◉

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 11000

Area, in hectares (ha) as calculated from GIS boundaries: 11062.797

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	1. Boreal
Freshwater Ecoregions of the World (FEOW)	2. terrestrial area Sarmatic mixed forests freshwater area Southern Baltic Lowlands temperate floodplain rivers and wetlands

Other biogeographic regionalisation scheme

1: EEA, European Environment Agency, http://www.eea.europa.eu/publications/report_2002_0524_154909
2: Olson, D. M, E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D'amico, I. Itoua, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, T.H. Ricketts, Y. Kura, J.F. Lamoreux, W.W.Wettengel, P. Hedao, & K.R. Kassem. 2001. Terrestrial Ecoregions of the World: A New Map of Life on Earth. - BioScience 51:933-938.
Abell, R., Thieme, M. L., Revenga, C., Bryer, M., Kottelat, M., Bogutskaya, N., Coad, B., Mandrak, N., Contreras Balderas, S., Bussing, W., Stiassny, M., Skelton, P., Allen, G., Unmack, P., Naseka, A., Ng, R., Sindorf, N., Robertson, J., Armijo, E., Higgins, J., Heibel, T.J., Wikramanayake, E., Olson, D., Lopez, H. L., Reis, R. E., Lundberg, J.G., Sabaj Perez, M.H., Petry P., 2008, Freshwater Ecoregions of the World: A New Map of Biogeographic Units for Freshwater Biodiversity Conservation. - BioScience 58: 403-414.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided	The Agusalu mire system plays an important role in recharge and discharge of groundwater and maintenance of water quality in northeast Estonia. Due to the existence of hydrologically spoiled areas (due to oil-shale mining) in the region this natural site has a special hydrological importance.
Other ecosystem services provided	Biodiversity maintenance. Soil (peat) formation. Climate change mitigation. Carbon storage. Ecosystem stability and resilience. Aesthetic and landscape values. Recreation and education.
Other reasons	The site is a particularly good representative of natural and near-natural transition mires, bogs and paludifying forests as well as the whole mosaic wetland complex, characteristic of the biogeographical region. Wetland habitats occurring in Agusalu and listed in the Annex I of the EU Habitats Directive are: active raised bogs (*7110), transition mires and quaking bogs (7140), bog woodland (*91D0), Fennoscandian deciduous swamp woods (*9080), natural dystrophic lakes and ponds (3160). The wetland complex plays a substantial hydrological, biological and ecological role in the region and it is identified both as an IBA and Natura 2000 site.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

Justification	The site supports particular elements of biological diversity that are rare or particularly characteristic of the Boreal biogeographic region such as untouched naturally open raised and transitional bogs and peatland forests, which contain a significant proportion of species (e.g. Sphagnum mosses) adapted to special environmental conditions of oligotrophic peatland environment.

☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

3.2 - Plant species whose presence relates to the international importance of the site

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
Hammarbya paludosa		☑	☐	☐	LC	☐	EN in Red List of Estonia	Nationally protected

Communities characteristic of the Boreal biogeographic region such as untouched naturally open raised and transitional bogs and peatland forests contain a significant proportion of species (e.g. Sphagnum mosses) adapted to special environmental conditions of oligotrophic peatland environment.

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
Others																		
CHORDATA / MAMMALIA	*Canis lupus*	Wolf	☑	☑	☐	☐	☐	☐	☐	☐				LC	☑	☐		Criterion 4: The site supports animal species at a critical stage in their life cycles as refuge for animals with large habitat requirement – large mammals including this species.
CHORDATA / MAMMALIA	*Lutra lutra*	European Otter	☑	☐	☐	☐	☐	☐	☐	☐				NT	☑	☐	Annexes II and IV of EU Habitats Directive	
CHORDATA / MAMMALIA	*Lynx lynx*	Eurasian Lynx	☐	☑	☐	☐	☐	☐	☐	☐				LC	☐	☐		Criterion 4: The site supports animal species at a critical stage in their life cycles as refuge for animals with large habitat requirement – large mammals including this species.
CHORDATA / MAMMALIA	*Pteromys volans*	Siberian Flying Squirrel	☑	☐	☐	☐	☐	☐	☐	☐				LC	☐	☐	Annexes II and IV of the Council Directive 92/43/EEC); VU in Red List of Estonia	
CHORDATA / MAMMALIA	*Ursus arctos*	Brown Bear; Grizzly Bear	☑	☑	☐	☐	☐	☐	☐	☐				LC	☑	☐		Criterion 4: The site supports animal species at a critical stage in their life cycles as refuge for animals with large habitat requirement – large mammals including this species.
Birds																		
CHORDATA / AVES	*Aquila chrysaetos*	Golden Eagle	☑	☑	☐	☐	☐	☐	☐	☐	1	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC; VU in Red List of Estonia; nationally strongly protected (I category)	1 breeding pair
CHORDATA / AVES	*Asio flammeus*	Short-eared Owl	☑	☑	☐	☐	☐	☐	☐	☐	1	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC; EN in Red List of Estonia	1 breeding pair
CHORDATA / AVES	*Caprimulgus europaeus*	European Nightjar	☑	☑	☐	☐	☐	☐	☐	☐	10	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	about 10 breeding pairs
CHORDATA / AVES	*Circus pygargus*	Montagu's Harrier	☑	☑	☐	☐	☐	☐	☐	☐	6	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	6 breeding pairs
CHORDATA / AVES	*Crex crex*	Corn Crake	☑	☑	☐	☐	☐	☐	☐	☐	2	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	1-2 breeding pairs
CHORDATA / AVES	*Ficedula parva*	Red-breasted Flycatcher	☑	☑	☐	☐	☐	☐	☐	☐	15	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	10-20 breeding pairs)
CHORDATA / AVES	*Gavia arctica*	Arctic Loon; Black-throated Loon	☑	☑	☐	☐	☐	☐	☐	☐	1	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC; CR in Red List of Estonia	Criterion 4: The site is one of the most important suitable breeding sites in Estonia
CHORDATA / AVES	*Grus grus*	Common Crane	☑	☑	☐	☐	☐	☐	☐	☐	10	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	10 breeding pairs
CHORDATA / AVES	*Haliaeetus albicilla*	White-tailed Eagle	☑	☑	☐	☐	☐	☐	☐	☐	1	2012-2019		LC	☑	☑	Annex I of Council directive 2009/147/EC; nationally strongly protected (I category)	1 breeding pair
CHORDATA / AVES	*Lagopus lagopus*	Willow Grouse; Willow Ptarmigan	☑	☑	☐	☐	☐	☐	☐	☐	1	2016		LC	☐	☐	EN in Red List of Estonia; nationally strongly protected (I category)	Criterion 4: The site is the most important suitable breeding site for this species; 1-5 pairs
CHORDATA / AVES	*Lanius collurio*	Red-backed Shrike	☑	☑	☐	☐	☐	☐	☐	☐	18	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	10-20 breeding pairs
CHORDATA / AVES	*Lymnocryptes minimus*	Jack Snipe	☑	☑	☐	☐	☐	☐	☐	☐	3	2012-2019		LC	☐	☐	VU in Red List of Estonia	Criterion 4: The site is one of the most important suitable breeding sites for this species in Estonia

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / AVES	*Lyrurus tetrix*	Eurasian Black Grouse; Black Grouse	☑	☑	☐	☐	☐	☐	☐	☐	50	2016		LC	☐	☐	Annex I of Council directive 2009/147/EC	50 - 100 ind
CHORDATA / AVES	*Pandion haliaetus*	Western Osprey; Osprey	☑	☑	☐	☐	☐	☐	☐	☐	3	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC; VU in Red List of Estonia	3 breeding pairs
CHORDATA / AVES	*Pluvialis apricaria*	European Golden Plover; European Golden-Plover	☑	☑	☐	☐	☐	☐	☐	☐	25	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	25-35 breeding pairs
CHORDATA / AVES	*Porzana porzana*	Spotted Crake	☑	☑	☐	☐	☐	☐	☐	☐	2	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	2-5 breeding pairs
CHORDATA / AVES	*Strix uralensis*	Ural Owl	☑	☐	☐	☐	☐	☐	☐	☐	3	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	2-5 breeding pairs
CHORDATA / AVES	*Tetrao urogallus*	Western Capercaillie	☑	☐	☐	☐	☐	☐	☐	☐	65	2016		LC	☐	☐	Annex I of Council directive 2009/147/EC	65-70 ind
CHORDATA / AVES	*Tringa glareola*	Wood Sandpiper	☑	☑	☐	☐	☐	☐	☐	☐	40	2012-2019		LC	☐	☐	Annex I of Council directive 2009/147/EC	40-100 breeding pairs

1) Percentage of the total biogeographic population at the site

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Natural dystrophic lakes and ponds (3160)	☑		Annex I of EU Habitats Directive
Transition mires and quaking bogs (7140)	☑		Annex I of EU Habitats Directive
Active raised bogs (*7110)	☑		Annex I of EU Habitats Directive, priority habitat type
Fennoscandian deciduous swamp woods (*9080)	☑		Annex i of EU Habitats Directive, priority habitat type
Bog woodland (*91D0)	☑		Annex I of EU Habitats Directive, priority habitat type
Alkaline fens (7230)	☑		Annex I of EU Habitats Directive

Optional text box to provide further information

In Estonia management planning (inventories, monitoring and reporting) of protected sites is largely based on habitat types listed in Annex I of EU Habitats Directive.

Wetland habitats of Annex I occurring in Endla site are: natural dystrophic lakes and ponds (3160), active raised bogs (*7110), transition mires and quaking bogs (7140), depressions on peat substrates of the Rhynchosporion (7150), alkaline fens (7230), Fennoscandian deciduous swamp woods (*9080) and bog woodland (*91D0).

Other important types are: Western taiga (*9010) and Fennoscandian herb-rich forests with Picea abies (9050).

Of mire plant communities, different subtypes of transition mires on a relatively large surface are of highest value. Bogs are represented by all subtypes (heath moor, hummock bog, hollow-ridge bog, pool bog). Part of deciduous swamp woods and quite some forests on “kriivas” and other mineral humps in mires (boreal taiga site types) as well as most of bog woodland are of almost no human influence.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Agusalu is a part of an extensive wilderness area in northeast Estonia charcterized by different open mire types - bogs, transition mires, fens. Within mires, heath and dry boreal pine forests are situated on relatively high narrow and long mineral ridges called "kriiva". Mires are surrounded by different types of forests including boreal taiga site types, swamp forests and ombrotrophic bog forests (bog woodland).

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks				
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		4	28	
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		0	4	
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		0		
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		2	3117	
Fresh water > Marshes on inorganic soils >> W: Shrub-dominated wetlands		0	16	
Fresh water > Marshes on inorganic soils >> Xf: Freshwater, tree-dominated wetlands		3	199	Representative
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		1	4290	Representative

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Forests on mineral soils	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Dactylorhiza fuchsii	Common Spotted Orchid	Nationally protected
Dactylorhiza maculata	Heath Spotted Orchid	Nationally protected
Diphasiastrum complanatum		Nationally protected
Elatine hydropiper	Eight-stamened Waterwort	Nationally protected
Epipactis helleborine	Broad-leaved Helleborine	Nationally protected
Goodyera repens	Creeping Lady´s –tresses	Nationally protected

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	*Castor fiber*	Eurasian Beaver				
CHORDATA/AVES	*Gallinago gallinago*	Common Snipe	27	2012-2019		Nationally protected
CHORDATA/AVES	*Lanius excubitor*	Northern Shrike;Great Grey Shrike	4	2016		Nationally protected
CHORDATA/AVES	*Tringa nebularia*	Common Greenshank	40	2012-2019		Nationally protected
CHORDATA/AVES	*Numenius phaeopus*	Whimbrel	15	2012-2019		Nationally protected bird
CHORDATA/AVES	*Tringa totanus*	Common Redshank	5	2012-2019		(Nationally protected bird

Optional text box to provide further information

The site is one of the most important breeding areas in Estonia for nationally protected Tringa nebularia (41 breeding pairs in 2017)

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfb: Humid continental (Humid with severe winter, no dry season, warm summer)

Climate is more boreal than in most of Estonia (except southeastern Estonia). Average temperatures range from -7° - -7,5°C in February to +17° - +17,5°C in July. The average rainfall is 500-550 mm and permanent snow cover lasts 110-115 days.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 25

a) Maximum elevation above sea level (in metres): 60

- Entire river basin ☐
- Upper part of river basin ☐
- Middle part of river basin ☑
- Lower part of river basin ☐
- More than one river basin ☐
- Not in river basin ☐
- Coastal ☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

River Narva. Inside the site small rivulets Remniku, Permisküla, Karjamaa.

4.4.3 - Soil

- Mineral ☑
  - (Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○
- Organic ☑
  - (Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○
- No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ○ No ◉

Please provide further information on the soil (optional)

The landscape relief is flat, rising gradually from northeast to southwest. The highest point of the site is situated on one of the long and relatively high mineral “islands” within mires. The whole mire complex has being formed due to the paludification of both ancient lakes and mineral land (thin lacustrine mud layer is found in places). The peat deposition has an average depth of 1 – 4 m, reaching a maximum of 7.8 m.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	☐	No change
Water inputs from groundwater	☐	No change
Water inputs from precipitation	☑	No change

Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The Agusalu mire complex plays an important role in the recharge and discharge of groundwater and maintenance of water quality in northeast Estonia.

4.4.5 - Sediment regime

Significant accretion or deposition of sediments occurs on the site ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Sediment regime unknown ☐

4.4.6 - Water pH

Acid (pH<5.5) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Circumneutral (pH: 5.5-7.4) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

Please provide further information on pH (optional):

Acid in bogs, circumneutral in other communities

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Oligotrophic ☑

(Update) Changes at RIS update: No change ◉ Increase ○ Decrease ○ Unknown ○

Unknown ☐

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ○ ii) significantly different ◉

Surrounding area has greater urbanisation or development ☐

Surrounding area has higher human population density ☑

Surrounding area has more intensive agricultural use ☐

Surrounding area has significantly different land cover or habitat types ☑

Please describe other ways in which the surrounding area is different:

South of the site is Lake Peipsi, east and north-east: mires and forests of Puhatu mire complex, west and north: settlements, forests and small agricultural areas.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Wetland non-food products	Timber	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Low
Scientific and educational	Major scientific study site	Medium
Scientific and educational	Long-term monitoring site	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Accumulation of organic matter	High
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	Low

Other ecosystem service(s) not included above:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ○ Unknown ◉

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland ☐

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	☑	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☑	☑

Provide further information on the land tenure / ownership regime (optional):

within the Ramsar site: mainly state-owned land; private land forms ca 10% of the total area

in the surrounding area: both private and state land

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

North Region of Environmental Board

phone: +372 3324400

Provide the name and/or title of the person or people with responsibility for the wetland:

Mr. Jaak Jürgenson, director of the North Region of Environmental Board

Postal address:

Pargi 15, 41537 Jõhvi, Estonia

E-mail address:

jaak.jurgenson@keskkonnaamet.ee

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Medium impact	Medium impact	☐	No change	☑	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Medium impact	Medium impact	☐	No change	☑	No change

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Logging and wood harvesting	Medium impact	Medium impact	☐	No change	☑	No change

Please describe any other threats (optional):

within the Ramsar site: almost none - the relatively strict protection regime guarantees survival of most plant and animal communities. Former forest amelioration ditches (situated only in some places in the eastern part of the site) will not be renewed. Some fens were used for hay-making in the past but not during the last 60 years.

in the surrounding area: gradual move of oil-shale pits towards the area; intensification of forestry; drainage.

5.2.2 - Legal conservation status

Regional (international) legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Agusalu		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Park	Alutaguse		partly

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Agusalu		whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve ☐
- Ib Wilderness Area: protected area managed mainly for wilderness protection ☑
- II National Park: protected area managed mainly for ecosystem protection and recreation ☐
- III Natural Monument: protected area managed mainly for conservation of specific natural features ☐
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☑
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☑

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Regulation/management of recreational activities	Implemented
Harvest controls/poaching enforcement	Implemented
Communication, education, and participation and awareness activities	Partially implemented
Research	Partially implemented

Other:

Since 2018 Agusalu nature reserve is a part of Alutaguse National Park. The main task of the national park (total area 44 331 ha) is to protect large bog massifs, forests and coastal landscapes of Lake Peispi together with cultural heritage characteristic to northeastern Estonia.

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ○ No ◉

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

No facilities since the majority of the area is strictly protected.
Visiting management is the responsibility of the State Forest Management Centre.

URL of site-related webpage (if relevant): https://www.kaitsealad.ee/eng

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

The basic document for restoration is the Action plan for Estonian protected mires 2016-2023 (https://www.envir.ee/sites/default/files/soode_tegevuskava.pdf) which designates the restoration needs, areas, and order of planning and implementing.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented

The environmental and biological monitoring is carried out mainly in the framework of the Estonian Environmental Monitoring Programme. The stations of monitoring programs located in Agusalu: monitoring of rare and protected birds (eagles), monitoring of mire birds (last surveys in 2013 and 2017).

No permanent scientific research in the area; no facilities.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Lõhmus, A., Kalamees, A., Kuus, A., Kuresoo, A., Leito, A., Leivits, A., Luigujõe, L., Ojaste, I., Volke, V. 2001. Bird species of conservation concern in the Estonian protected areas and important bird areas. Hirundo Supplementum 4: 37-167.
Paal, J., Ilomets, M., Fremstad, E., Moen, A., Børset, E., Kuusemets, V., Truus, L., Leibak, E. 1998. Estonian wetlands inventory 1997. Publication of the project “Estonian Wetlands Conservation and Management Strategy”. Eesti Loodusfoto, Tartu. 166 + xxviii pp.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<no file available>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<1 file(s) uploaded>

vi. other published literature
<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

Transition mire (*Agu Leivits, 20-05-2017*)

View from the "kriiv a" (*Agu Leivits, 20-05-2017*)

View to the bog (*Herdis Fridolin, 02-08-2018*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation	2010-01-27